

A new *Kentroleuca* DRAUDT, 1929 from the Cerrado region of Brazil (Lepidoptera: Saturniidae, Hemileucinae)

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Abstract: *Kentroleuca novaholandensis* n. sp. is described from the south of the state of Maranhão in northern central Brazil. It is closely allied to *Kentroleuca albilinea* (SCHAUS, 1908) from which it differs primarily by the red brown, instead of slate gray, predominant coloration of all four wings above and below. The six known specimens are males; all were collected by the junior author in the type locality on 23 October 2000. The characters of the genus are indicated, the holotype is illustrated in color and the male genitalia are figured. The holotype is deposited in the collection of the Department of Zoology of the Universidade Federal do Paraná, Curitiba, Brazil.

Key-words: Brazil, Cerrado, Saturniidae, Hemileucinae, *Kentroleuca novaholandensis* n. sp., taxonomy.

Un nouveau *Kentroleuca* DRAUDT, 1929 du Cerrado brésilien (Lepidoptera: Saturniidae, Hemileucinae)

Résumé: *Kentroleuca novaholandensis* n. sp. est décrit du sud de l'état de Maranhão au Brésil central septentrional. Cette espèce est très voisine de *Kentroleuca albilinea* (SCHAUS, 1908) dont elle diffère essentiellement par la coloration brun rouge au lieu de gris ardoise des zones sombres des quatre ailes sur les deux faces. Les six exemplaires connus sont des mâles, tous originaires de la localité typique où ils ont été récoltés par C. MIELKE le 23 octobre 2000. Les caractères les plus marquants du genre *Kentroleuca* sont indiqués et l'holotype de l'espèce nouvelle est illustré, de même que l'armure génitale mâle. L'holotype est déposé dans la collection du Département de Zoologie de l'Universidade Federal do Paraná à Curitiba, Brésil.

Eine neue *Kentroleuca* DRAUDT, 1929 aus der Cerrado-Region von Brasilien (Lepidoptera: Saturniidae, Hemileucinae)

Zusammenfassung: *Kentroleuca novaholandensis* n. sp. wird aus dem Süden des Staates Maranhão im nördlichen Zentralbrasilien beschrieben. Die neue Art ist sehr ähnlich zu *Kentroleuca albilinea* (SCHAUS, 1908) und unterscheidet sich in erster Linie durch die rotbraune anstelle von graue Grundfarbe aller vier Flügel, oberseits wie unterseits. Die sechs bisher bekannten Exemplare sind alle Männchen; sie wurden vom Zweitautor am Typenfundort am 23. Oktober 2000 gefangen. Die Merkmale der Gattung werden angegeben, und der Holotypus (in Farbe) sowie die männliche Genitalarmatur werden abgebildet. Der Holotypus befindet sich in der Sammlung der Zoologischen Instituts der Universidade Federal do Paraná, Curitiba, Brasilien.

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Introduction

The South American genus *Kentroleuca* was established by DRAUDT (1929–1930) with *Heliconisa lineosa* WALKER, 1855 as single nominal species. MICHENER (1952) reduced *Kentroleuca* to the status of subgenus of *Dirphia* HÜBNER, [1819] with two more included species, *Hemileuca dukinfieldi* (SCHAUS, 1894) and *Ormiscodes albilinea* SCHAUS, 1908, then cited in the literature either in *Dirphia*, *Dirphiopsis* BOUVIER, 1928 or *Pseudodirphia* BOUVIER, 1928. *Kentroleuca* was restored to full generic rank by LEMAIRE (1971) who simultaneously described a fourth species, *Kentroleuca spitzzi*.

Kentroleuca are medium-sized moths with the following main distinctive traits: antennae black, those of ♂♂ bipectinate with apical bristles longer than setae, of ♀♀ simple or shortly bidentate, labial palpi three-segmented, foretibia with at least one apical spine, tibial spurs number 0-2-3 or 0-2-4, arolium and pulvilli present. The habitus is primarily characterized by the absence of colored rings on the upper surface of the abdomen and the presence on the forewing (except in *Kentroleuca dukinfieldi*) of one long white stria each on the discal cell



Fig. 1: *Kentroleuca novaholandensis* n. sp.: holotype ♂ (wingspan 72 mm); left upperside, right underside.

and the cell 1A + 2A/CuA2; the only other markings are the very short (absent in *Kentroleuca dukinfieldi*) antemedial line and the very broad white postmedial line on the forewing; there is a usually vague whitish postmedial line on the hindwing. Venation yellow, always contrasting.

In ♂ genitalia the uncus is narrow, simple, apically down-curved, the gnathos represented by a broad transverse band laterally fused to the tegumen, the valves narrow, the saccus broad and prominent; aedeagus large, compared with the remainder of the armature; vesica provided with a hook-like cornutus except in *Kentroleuca spitzi*.

The genus *Kentroleuca* is primarily an inhabitant of the Cerrado region of Brazil (AIRES DE CAMARGO & BECKER 1999) with an extension of the range to similar biotopes of eastern Bolivia.

Kentroleuca novaholandensis n. sp.

♂ holotype: Brazil, Maranhão, Serra do Penitente, Balsas, Fazenda Novaholandia, 550 m, 23 Oct. 2000 (C. MIELKE).

Paratypes: 5 ♂♂, same data and collector as holotype.

The holotype is deposited in the collection of the Department of Zoology, Universidade do Paraná, Curitiba, Brazil. Paratypes will be deposited in the following collections: 2 specimens in the collection of the junior author, one specimen in each of the collections of Professor O. H. H. MIELKE, Curitiba, Paraná, E. FURTADO, Diamantino, Mato Grosso, Brazil, and C. LEMAIRE in Muséum national d'Histoire naturelle, Paris, France.

Etymology: The name of the new species refers to the name of the farm where the type series was collected at Balsas on the Rio Balsas, a tributary of the Rio Paranaíba.

Description

♂ (Fig. 1). Wingspan: 62–74 mm. Forewing length: 33–38 mm. Antennae (ca. 52 segments), proximal rami black, distal rami dark rusty yellow. Labial palpi three-segmented, black, interspersed with reddish brown; frons yellowish gray, thorax light gray, legs black, femoral fringe light gray, thorax gray. Apical spine of foretibia short, epiphysis large, about two-thirds as long as foretibia; tibial spurs number 0–2–4. Abdomen dorsally yellow, ventrally light gray; spiracles black, surrounded with white. Forewing moderately elongate, apex rounded, not produced. Ground color of the forewing red brown, markings typical of *Kentroleuca*; ante- and postmedial lines narrowly bordered with black, the latter almost straight to concave, running either from the costa or from R5 to the distal end of the lower white stria. Hindwing colored as on forewing, more or less broadly suffused with white on the baso-median area. Underside similar to upperside except for the toning down of the red brown ground color and of the markings on all four wings; there is a relatively conspicuous white postmedial line on the hindwing.

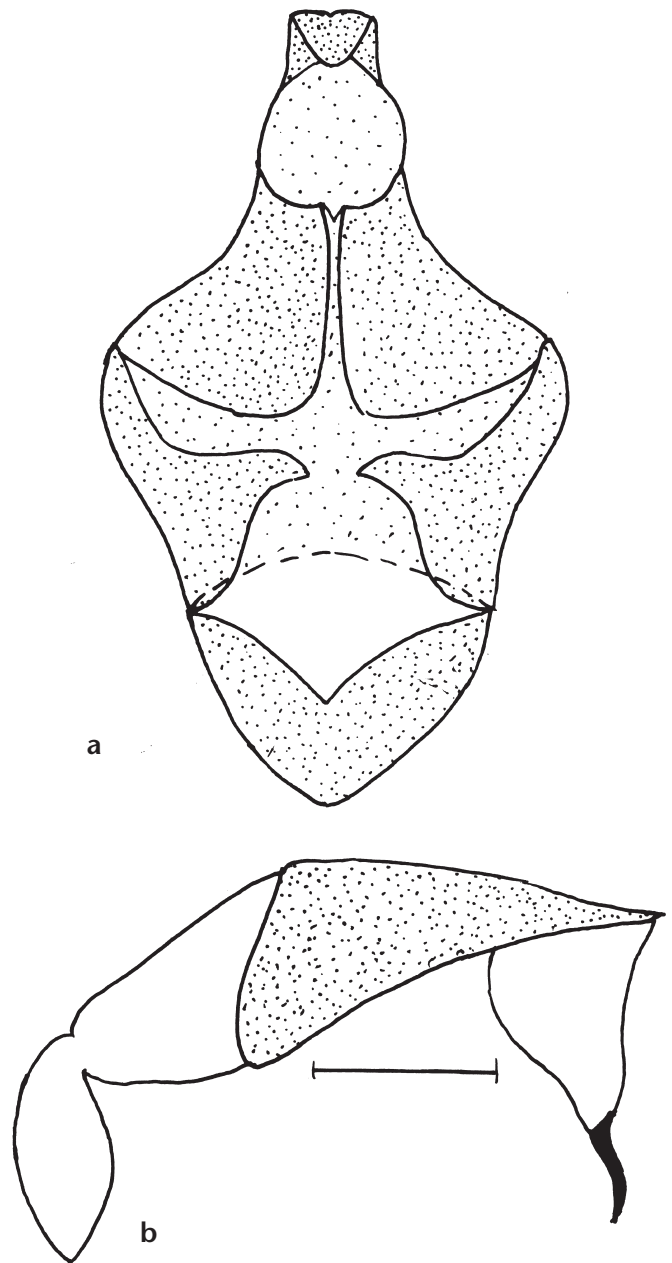


Fig. 2: *Kentroleuca novaholandensis* n. sp.: ♂ genitalia a) ventral view, aedeagus removed; b) lateral view of aedeagus. — Scale: 1 mm.

♂ genitalia (Fig. 2). Typical structure of the ♂ genitalia of *Kentroleuca* as described above. There is a strong hook-like cornutus on the vesica.

♀ and immature stages. Unknown.

Geographical distribution

Kentroleuca novaholandensis is known only from the type locality in the south of the Brazilian state of Maranhão (ca. 08°40'S, 46°40'W) at 550 m elevation with savannah as dominant type of vegetation.

Discussion

The new species is in general appearance closer to *Kentroleuca albilinea* than to any of the three other members of the genus. As indicated above it differs primarily from *K. albilinea* by the red brown instead of slate gray ground color of the dark areas on all four wings above and below; based on the examined specimens the lower white stria of the forewing (between 1A + 2A and CuA2) does not cross the postmedial line in *K. novahollandensis* whereas in *K. albilinea* it tends to reach the outer margin; in the former the suffusion of white scales on the basomedian area of the hindwing is not as wide and not as well delimited as in the latter. Tibial spurs number 0-2-4 in *K. novahollandensis* instead of 0-2-3 in *K. albilinea* and *K. spitzi*. The ♂ genitalia of the new species do not significantly differ from those of *K. albilinea*; in *K. spitzi*, the vesica lacks the cornutus.

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References

- AIRES DE CAMARGO, A. J., & BECKER, V. O. (1999): Saturniidae (Lepidoptera) from the Brazilian Cerrado: composition and biogeographic relationships. — *Biotropica* (Lawrence, Kansas) **31**: 696-705, 5 tabs.
- DRAUDT, M. (1929-1930): 12. Familie: Saturnidae [sic]. — Pp. 713-827, col. pls. 101-137, 142 in: SEITZ, A. (ed.), *Die Gross-Schmetterlinge der Erde*, vol. 6, *Die amerikanischen Spinner und Schwärmer*. — Stuttgart (A. Kernen), viii + 1452 pp., col. pls. 1-185.
- LEMAIRE, C. (1971): Descriptions d'Attacidae (= Saturniidae) nouveaux de l'Amérique centrale et du Sud (Lepidoptera). — *Tijdschrift voor Entomologie*, Leiden (The Netherlands), **114**: 141-162, 12 pls.
- MICHENER, C. D. (1952): The Saturniidae (Lepidoptera) of the Western Hemisphere. Morphology, phylogeny, and classification. — *Bulletin of the American Museum of Natural History* (New York) **98**: 335-502, figs. 1-420, pl. 5, diagr. 1, tabs. 1-19.

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